

REMARKS

In the Official Action mailed 03 September 2008, the Examiner reviewed claims 1-18 and 33-38. The Examiner has rejected claims 1-18 and 33-38 under 35 U.S.C. §112, first paragraph; has rejected claims 1-18 and 33-38 under 35 U.S.C. §112, second paragraph; has rejected claims 1-7, 12, and 33 under 35 U.S.C. §102(b); has rejected claims 8-11 and 35 under 35 U.S.C. §103(a); has rejected claims 13, 14 and 17 under 35 U.S.C. §103(a); has rejected claim 15 under 35 U.S.C. §103(a); has rejected claim 16 under 35 U.S.C. §103(a); has rejected claim 18 under 35 U.S.C. §103(a); has rejected claims 34 and 35 under 35 U.S.C. §103(a); and has rejected claims 36-38 under 35 U.S.C. §103(a).

Applicant has amended claims 1, 2, 3, 4, 33 and 36. After entry of this Amendment, claims 1-18 and 33-38 will remain pending.

The Claim Rejections**Claim Rejections Under 35 USC § 112**

Claims 1-18 and 33-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant has amended the specification in response to the rejections relating to **claims 1, 33, 37 and 38. Support for these amendments** are found in the description and the drawings as filed so that no new matter has been added to the claims. **Claim 13** was previously amended to remove reference to "wire mesh" and "a sheet of material".

Claims 1, 3, 4, 33 and 36 have been amended in response to the rejections for being indefinite under 35 U.S.C. 112, second paragraph.

Rejection of Claims 1-7, 12 and 33 under 35 U.S.C. §102(b)

The Examiner has rejected claims 1-7, 12 and 33 under 35 U.S.C. §102(b) as being anticipated by Aharon (US Patent 4,345,582).

Rejection of Claims 8-11 and 35 under 35 U.S.C. §103(a)

The Examiner has rejected claims 8-11 and 35 under 35 U.S.C. §103(a) as being unpatentable over Aharon as applied to claims 1 and 33 above, and further in view of Berman et al. (US 4,663,495, as cited in previous office action).

Rejection of Claims 13, 14 and 17 under 35 U.S.C. §103(a)

The Examiner has rejected claims 13, 14 and 17 under 35 U.S.C. §103(a) as being unpatentable over Aharon as applied to claim 12 above, and further in view of Catella et al. (US 4,611,090, as cited in previous office action).

Rejection of Claim 15 under 35 U.S.C. §103(a)

The Examiner has rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Aharon and Catella as applied to claim 13 above, and further in view of Berman.

Rejection of Claim 16 under 35 U.S.C. §103(a)

The Examiner has rejected claim 16 under 35 U.S.C. §103(a) as being unpatentable over Aharon in view of Catella as applied to claim 13 above, and further in view of Yamawaki et al. (US Patent 6,489,552, as cited in previous office action).

Rejection of Claim 18 under 35 U.S.C. §103(a)

The Examiner has rejected claim 18 under 35 U.S.C. §103(a) as being unpatentable over Aharon as applied to claim 1 above, and further in view of Blieden et al. (US 4,153,813, as cited in previous office action).

Rejection of Claims 34 and 35 under 35 U.S.C. §103(a)

The Examiner has rejected claims 34 and 35 under 35 U.S.C. §103(a) as being unpatentable over Aharon as applied to claim 33 above, and further in view of Shingleton (US 6,058,930, as cited in previous office action)

Rejection of Claims 36-38 under 35 U.S.C. §103(a)

The Examiner has rejected claims 36-38 under 35 U.S.C. §103(a) as being unpatentable over Aharon as applied to claim 33 above, and further in view of Morton (US 6,341,451).

The Cited Art

The **Aharon** patent (US Patent 4,345,582) shows a single East-West oriented row of units 1. Each unit includes a stand 2 comprising a base 20 and a rotatable rod 21. Rod 21 can rotate about a vertical axis by the actuation of a rod 7, 7', 7'' (vertical movement means). A

generally North-South oriented rod 22 is rigidly attached to the upper end of rod 21. A cradle-like base 3 has bearings 23 mounted on rod 22. Solar collector 4 is mounted to base 3. A rod 24 connects base 3 to rod 6 (horizontal movement means). Actuation of rod 6 causes base 3 and collector 4 therewith to pivot between generally east facing morning and generally west facing evening orientations.

The patent to **Catella** (U.S. Patent No. 4,611,090) discloses a semi rigid support member 10 for supporting flexible PV modules 22. Flexible PV modules 22 are secured to semi rigid support member 10 using adhesive. (Figure 4, column 8/ lines 12-18) The embodiment of figure 5 discloses an array of 30 of support members 32. Each support member 32 includes a frame 33 having inwardly extending rib stiffeners 36 that terminate near the center at a rectangular structure 37. Posts 43 are used to connect the support members 32 at each end of the array 32 to a base 4 at each end.

The **Morton** patent (U.S. Patent No. 6,341,451) discloses a portable garage 10 having solar panels 21, 22 on its top wall 12. The solar panels are used to power, for example, cylinder and arm members 29, 30 to open and close garage door 24.

The Cited Art Distinguished

Independent Claim 1

Applicant has amended claim 1 to clarify that the axes of the generally North-South oriented torque tubes are generally North-South oriented axes. Claim 1 is allowable over the cited art released the following reasons.

1. The Examiner has apparently taken the position that rotatable rods 21 of Aharon constitute a series of North-South oriented torque tubes. The Examiner has also stated that each rod 21 has a vertical axis. Applicant believes these positions are incorrect for several reasons. First, rods 21 are not what one of ordinary skill in the art would consider a torque tube. However, even assuming, for sake of discussion, that rods 21 could be considered to torque tubes, rods 21 are, as acknowledged by the Examiner, vertically extending; they are not North-South extending as required by the claim. Making rods 21 North-South extending would not have been obvious because they would apparently make the apparatus inoperable.

2. The Examiner apparently takes the position that Aharon discloses spaced apart rows of panels. While Aharon discloses a single East-West oriented row of panels, applicant can find nothing in Aharon to support the Examiner's position. If the Examiner believes that Aharon

discloses spaced apart rows of panels as presently claimed, please specifically point them out to the applicant; they are not apparent.

3. The Examiner has apparently taken the position that cable/chains 7', 7" constitute a stationary shade structure to provide an enhanced shaded region thereunder. Applicant believes that this is incorrect. First, as Examiner is no doubt aware, claims are written to be understood by one of ordinary skill in the art. One of ordinary skill in the art would not consider a chain or cable to be a shade structure, especially not one that would provide an enhanced shaded region thereunder. Second, applicant submits that a relatively thin cable or chain would not cast a visible shadow onto the support surface, much less provide an enhanced shaded region. This provides another basis for applicant's position that cable/chains 7', 7" do not constitute a stationary shade structure.

Independent Claim 33

Claim 33 is allowable for the same reasons as is claim 1.

The Dependent Claims

The **dependent claims** are directed to specific novel subfeatures of the invention and are allowable for that reason as well as by depending from novel parent claims. Following are some examples.

- **Claim 2** has been rejected on the basis that a single post 20 can be considered both a Southside support and a North Side support. Applicant believes that one of ordinary skill in the art reading this claim would not consider a single post to constitute a Southside support and a North Side support as presently claimed. However, to facilitate allowance of this application, applicant has amended claim 2 to recite what applicant believes was inherent, that is that the Southside supports and North Side ports are spaced apart from one another.
- **Claim 13** has been rejected in part over Catella. While applicant believes that the rib stiffeners 36 and rectangular structure 37 of Catella do not constitute a protective panel, claim 13 was previously amended to more specifically recite what one of ordinary skill in the art would understand as characteristics of a protective panel, that is something substantially covering the entire lower surface to protect the PV modules from damage. Catella lacks this claimed feature. There would have been no reason to modify the cited art to arrive at the invention

of claim 13 because there was no recognition of the desirability or need to do so.

In addition, claim 13 has been previously amended to specify the protective panel is spaced apart from substantially the entire lower surface of the PV module. In contrast, flexible PV module 22 necessarily contacts the support member because of its lack of rigidity. Assuming, for sake of discussion, that the support structure of Catella constitutes a protective panel, which it does not, it would not have been obvious to modify the support structure of Catella so that it is spaced apart from the entire lower surface of flexible PV module 22 because doing so would eliminate the necessary structural support for flexible PV module 22. Accordingly, Catella fails to disclose structure that includes either of the following features: (1) protective panels spaced apart from the PV modules, (2) protective panels substantially covering the entire lower surface of the PV modules.

- As to **claim 36**, the Morton patent shows a portable garage having solar panels on its roof to allow the doors to be opened and closed with the electricity generated by the solar panels. Applicant believes that it would not have been obvious to combine the solar collector assemblies of Aharon with the portable garage of Morton.
 - "The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting any rejection under 35 U.S.C. 103 should be made explicit. The court quoting *In re Kahn* [footnote omitted] stated that "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reason with some rationale underpinning to support the legal conclusion of obviousness.'" Federal Register, Vol. 72, No. 195, Wednesday, October 10, 2007 at 57528-57529. In this case the Examiner has combined the two references under the apparent assumption that they could be combined without providing a rationale (7 types being outlined in the Federal Register Notice) supporting the conclusion of obviousness.

- Even if one were to assume, for sake of discussion, that it would have been obvious to combine the teachings of Aharon and Morton, the resulting structure would not bear much resemblance to the invention of claim 36. That is, the resulting structure would not be a support structure comprising first and second mounting assemblies with the second mounting assembly supporting the shade structure as claimed. The examiner has provided no guidance as to how or why one of ordinary skill in the art would have been led to combine these references in a manner to arrive at the present invention.
- Dependent **claim 37** now recites first, second, third, fourth and fifth rows of panels and first and second stationary shade structures between the first and second rows and between the fourth and fifth rows of panels. As discussed above with reference to claim 1, Aharon does not disclose rows of panels, but merely one row and does not disclose a stationary shade structure.
- Dependent **claim 38** is allowable as depending from allowable claim 37 as well as reciting the advantageous feature of the rows and shade structures having generally equal lengths to maximize the shading between the rows. In addition, the cited case is not dispositive because, as discussed above, the relative dimensions are not the only distinction between the cited art and the claimed invention. Accordingly, claim 38 is also allowable over the cited art.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested. If the Examiner believes a telephone conference would aid the prosecution of this case in any way, please call the undersigned at (650) 712-0340.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (PWRL 1029-4).

Respectfully submitted,

Dated: 02 December 2008

/James F. Hann/

James F. Hann, Reg. No. 29,719

HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax